

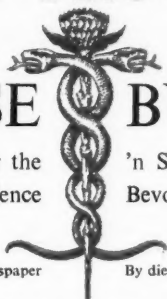
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A South African Journal for the
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'n Suid-Afrikaanse Tydskrif vir die
Bevordering van die Geneeskunde



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Behandeling van Trachoom by die Voorkoming van Blindheid

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Epidemic Keratoconjunctivitis and Hartebeespoort Dam

Alcoholism in Whites and Non-Whites in South Africa

Group Therapy in the Management of African Psychotics

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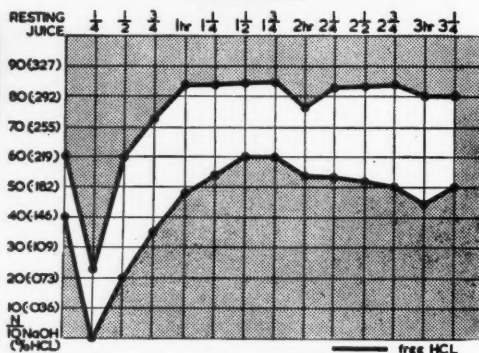
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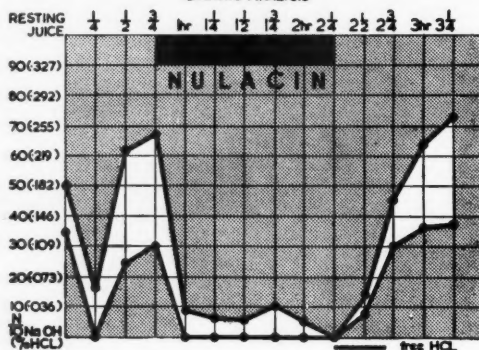


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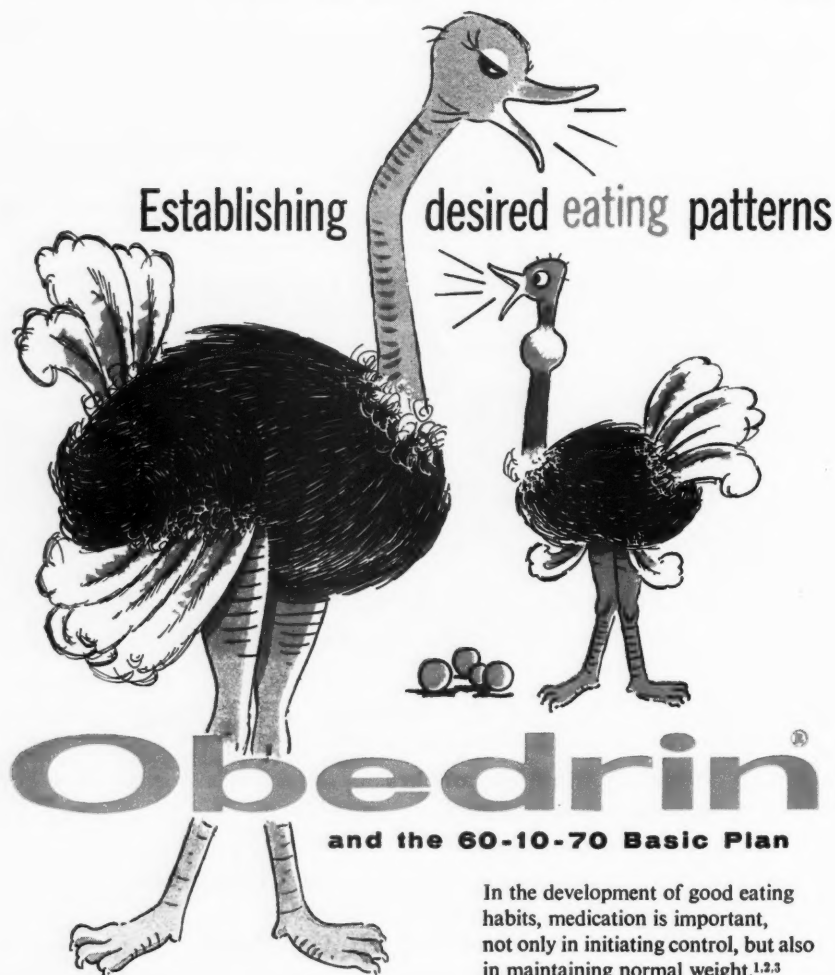
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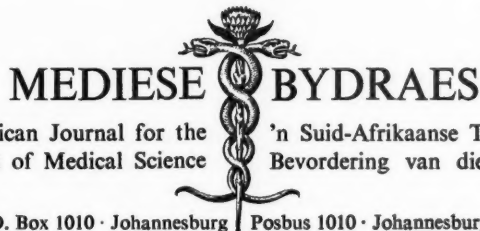
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REDAKSIONEEL · EDITORIAL

DIE BEHANDELING VAN TRACHOOM BY DIE VOORKOMING VAN BLINDHEID

In 'n inleidingsartikel in hierdie Tydskrif op 25 Mei 1957, op bladsy 245, het ons die aandag gevestig op die eerste verslag oor 'n veldproefneming deur dr. J. Graham Scott en dr. I. B. Taylor in verband met die dramatiese welslae waarmee die behandeling van trachoom met antibiotiese salwe bekroon is. 'n Belangrike kenmerk van die Scott-Taylor-skema was dat dit bewys het dat dit prakties moontlik is om skoolkinders te leer nie alleen om hulself te help nie, maar ook om ander kinders wat nog nie die skoolgaande ouderdom bereik het nie, te behandel.

In hierdie uitgawe publiseer ons die finale verslag van hierdie skrywers oor hul proefnemings met die veldbehandeling van trachoom. Dit bring twee punte van groot belang aan die lig:

i. Blindheid ten gevolge van trachoom kan voorkom word deur *skoolkinders* te genees; baie min van hierdie kinders raak opnuut besmet as die behandeling gestaak word.

ii. Dit sal nie maklik wees om trachoom heeltemal onder die knie te kry nie omdat *babietjies* gou-gou opnuut besmet raak as die behandeling gestaak word.

Die omvang van die blindheid-vraagstuk moet nie onderskat word nie. Die jongste inligting verkry van die Buro vir die Voor-

THE TREATMENT OF TRACHOMA IN THE PREVENTION OF BLINDNESS

In an editorial in this Journal published on 25 May 1957, at p. 245, we drew attention to the first report of a field experiment by Dr. J. Graham Scott and Dr. I. B. Taylor on the dramatic success which attended the treatment of trachoma with antibiotic ointments. An important feature of the Scott-Taylor project was that it proved the practicability of teaching school children not only to help themselves but to treat others who were not of school-going age.

In this issue we publish a final report by these authors on their experiments in treating trachoma in the field. Two points of great importance emerge:

i. Blindness from trachoma can be prevented by curing *school children*, few of whom become re-infected when treatment is stopped.

ii. Trachoma will not be easy to eradicate entirely, because *babies* are soon re-infected when treatment is stopped.

The magnitude of the blindness problem must not be underestimated. The latest information from the Bureau for the Prevention of Blindness indicates that close on 27,000 Afri-

koming van Blindheid dui daarop dat amper 27,000 naturelle in die Unie as blind gesertifiseer is. Daar is natuurlik ook talle ander blinde naturelle wat nog nie gesertifiseer is nie. 'n Opname wat in 1957 deur die Buro onderneem is, het aan die lig gebring dat omtrent die helfte van al hierdie gevalle van blindheid deur trachoom veroorsaak is. Hoewel hierdie opname in Noord-Transvaal gedoen is (waar trachoom 'n doodgewone verskynsel is) word daar bereken dat ongeveer een-derde van bogenoemde 27,000 naturelle blind word ten gevolge van infeksies wat voorkom kan word.

Op hierdie etiologiese grondslag behoort dit moontlik te wees om een-derde van alle toekomstige gevalle van blindheid uit te skakel. Dit is 'n geweldige stap vooruit, en die Buro is van plan om naturelle-veldwerkers op te lei om hulp te verleen aan besoekende veld-oftalmoloë. Hierdie resident-werkers sal huis-besoek doen en raad oor die behandeling van babetjies aan moeders gee. Dit is duidelik dat herbesmetting alleen vermy sal kan word as ons die reservoir van infeksie in enige besondere gebied tot 'n blote minimum beperk. Op hierdie manier sal dit uiteindelik miskien moontlik wees om die siekte geheel en al uit te roei.

Die pogings om 'n entstof teen trachoom te ontwikkel, was tot dusver teleurstellend. Die navorsingswerk in hierdie rigting word voortgesit, maar aangesien Scott en Taylor die doeltreffendheid van reeds beskikbare middels bewys het, kan ons ons nou toelê op 'n program van genesing en voorkoming.

Volgens ons mening is die voorkoming van blindheid (wat die oorsaak van daardie blindheid ook al is) 'n openbare verantwoordelikheid, en derhalwe word daar gehoop dat die Unie-gesondheidsdepartement gebruik sal maak van die Nasionale Raad vir die Blindes en van sy Buro vir die Voorkoming van Blindheid in die pogings om die aanval op hierdie ernstige probleem kragdadig deur te voer. Selfs 'n matige toelae uit openbare fondse sal die Buro in staat stel om sy waardevolle preventiewe werk aan te pak op 'n skaal wat nodig is om 'n probleem wat reeds verontrustende afmetings aangeneem het, die hoof te bied, veral nou dat Suid-Afrikaanse navorsingswerkers 'n verblydend eenvoudige en doeltreffende manier ontwikkel het om 'n siekte wat soveel tragedie vir die huisgesin meebring, te voorkom of te genees.

'n Voorkomingsprogram is goedkoop as die heil-same gevolge daarvan in ag geneem word, d.w.s. nie alleen die voorkoming van blindheid nie, maar ook die vermindering van die aansienlike bedrae wat deesdae aan pensioene vir blindes bestee word. Die verlies van arbeidskragte vir ons handel en nywer-hede en vir die naturelle self in hul eie stamgebiede is ook 'n belangrike saak. Die mediese wetenskap het 'n doeltreffende wapen gesmee om die toestand die hoof te bied. Dit is tans ons openbare plig om daarvoor te sorg dat uitvoering aan die noodsaaklike program gegee word.

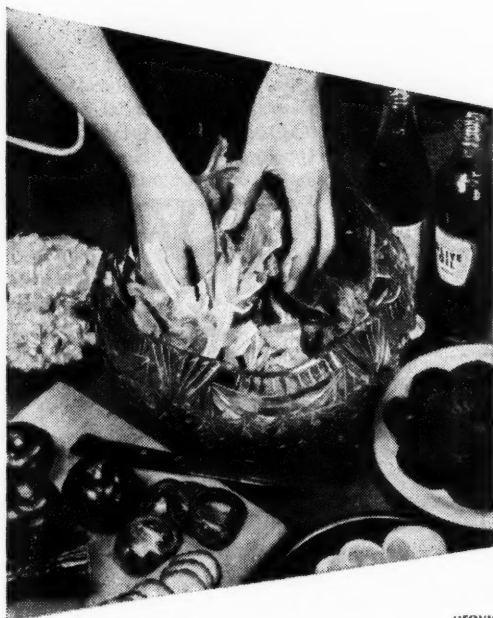
cans have been certified as blind in the Union. There are, of course, many more blind Africans who have not been certified. In a survey of blind Africans which the Bureau carried out in 1957, the cause was determined to be trachoma in about half the cases. Although this survey was done in the Northern Transvaal (where trachoma is most common) it is estimated that one-third of the 27,000 Africans are blinded by infection which is preventable.

On this etiological basis it should be possible to eliminate one-third of all cases of future blindness. This is a tremendous step forward, and the Bureau plans to train African field workers who will assist visiting ophthalmologists working in the field. These resident workers will make house visits to advise mothers on the treatment of their babies. It is clearly only by reducing the reservoir of infection to a bare minimum in a particular area, that re-infection can be avoided. In this way it may be possible ultimately to wipe out the disease completely.

The development of a vaccine against trachoma has so far proved disappointing. Research continues in this direction but as Scott and Taylor have proved the efficacy of readily available drugs, we can now proceed with a programme of cure and prevention.

In our view, the prevention of blindness, from whatever cause, is a public responsibility, and it is to be hoped that the Union Health Department will make use of the National Council for the Blind and its Bureau for the Prevention of Blindness to pursue actively the attack on this grave problem. A modest support from public funds will enable the Bureau to tackle its valuable preventive work on a scale necessary to cope with a problem which has already assumed such alarming proportions, and for which South African research workers have developed a gratifyingly simple and effective means of averting or curing a disease which means so much in domestic tragedy.

A programme of prevention is cheap when we consider the achievements not only in preventing blindness, but also in reducing the considerable expenditure now devoted to pensions for the blind. The loss of manpower to commerce and industry and to the African people themselves in their own tribal areas, is also a matter of grave concern. Medical science has evolved an effective weapon to combat the situation. It is now our public duty to see that the necessary programme is implemented.



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DIE KOMMISSIE INSAKE STRALINGSGEVARE

Op 23 November 1959 het die Regering die aanstelling aangekondig van 'n Kommissie om ondersoek te doen na die gebruike van en die gevare verbonde aan ioniserende straling in Suid-Afrika. Die Kommissie sal onder meer aanbevelings doen in verband met enige wetgewing wat nodig mag wees om doeltreffende beskerming en veiligheidsmaatreëls te verseker, waar hulle in ons nywerhede of in die mediese praktyk nodig is.

Prof. S. F. Oosthuizen (die vermaarde President van die Suid-Afrikaanse Geneeskundige Raad en Professor van Radiologie aan die Universiteit van Pretoria) is voorsitter van die Kommissie. Hy word bygestaan deur dr. P. J. Kloppers (vroeër Professor van Geneeskunde aan die Universiteit van Pretoria), prof. E. M. Hamman, dr. M. Weinbren en mnr. P. D. Hartzer (van die Kernkragraad) wat as Sekretaris sal optree.

Dr. M. Weinbren is dwarsdeur Suid-Afrika bekend, en kan miskien beskryf word as die doyen van die radioloë in die Unie. Sy aanstelling is besonder passend, want hy was die pionier van die introduksie en gebruik van radio-isotope in hierdie land.

Suid-Afrika het reeds belangrike bydraes gelewer tot die vermindering van stralingsgevale in die kliniese praktyk.¹⁻³ Atoomontploffings op die vasteland van Afrika bring ons temeer steeds sterker onder die indruk van die noodsaaklikheid om oorweging te verleen aan die nuwe en sonderlinge gevare waaraan ons bes moontlik blootgestel kan word, en van die onraadsaamheid daarvan om ongekwalfiseerde persone toe te laat om X-straal-masjiene te gebruik. Die betekenislose en gevaarlike gebruik van sulke masjiene in skoenwinkels is een van die dinge wat nou gerus verbied kan word.

Ons verwelkom die tydige aanstelling van hierdie Kommissie om oorweging te verleen aan die unieke probleme wat die Atoomeeu vir ons meebring.

THE COMMISSION ON RADIATION HAZARDS

On 23 November 1959 the Government announced the appointment of a Commission to investigate the uses and the hazards of ionizing radiations in South Africa. The Commission will, *inter alia*, make recommendations about any legislation which may be necessary to ensure adequate protection and safety measures, where these are necessary in industry or in the practice of medicine.

Prof. S. F. Oosthuizen (the distinguished President of the South African Medical Council and Professor of Radiology at the University of Pretoria) is the Chairman of the Commission. He is assisted by Dr. P. J. Kloppers (formerly a Professor of Medicine at the University of Pretoria), Prof. E. M. Hamman, Dr. M. Weinbren and Mr. P. D. Hartzer (of the Atomic Energy Council) who will act as Secretary.

Dr. M. Weinbren is well known throughout South Africa and may well be described as the doyen of radiologists in the Union. His appointment is particularly fitting because he pioneered the introduction and the use of radioisotopes in this country.

South Africa has already made important contributions to reducing radiation hazards in clinical practice.¹⁻³ Atomic explosions on the African continent, moreover, make us increasingly conscious of the need to consider the possibly new and novel risks to which we may be subjected and the un wisdom of permitting unqualified persons to use X-ray machines. The pointless and dangerous employment of such machines in shoe stores should now be considered for prohibition.

We welcome the timely appointment of this Commission to consider the unique problems created for us in the Atomic Age.

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PREVENTION AND CURE OF TRACHOMA

A FINAL REPORT

J. GRAHAM SCOTT, M.D., D.O.M.S. (R.C.P. & S.)*

and

I. B. TAYLOR, F.R.C.S., D.O.M.S. (R.C.P. & S.)†

Johannesburg

In May 1957 a preliminary report¹ was published on the early results of a field trial of treating trachoma in a native rural area. The method was the instillation of antibiotic ointment 3 times daily, during the hot fly-infested months, into the eyes of all babies and children. This commenced in September 1955. Four centres, based on the schools in the area, were chosen north-west of Potgietersrust.

By September 1956 it became clear that the mothers could not bring their babies for treatment at the various centres owing to the large distances involved. It was decided to issue chloramphenicol 1% ointment to the school children, who treated each other 3 times daily for 3 days in each month, and also took the ointment home to their younger brothers and sisters for the same treatment.

In 1955 the incidence of trachoma was 429 in 687 (63%) in the under-5 group. In September 1956, before the modified plan was adopted 191 of 439 babies (44%) had trachoma. By March 1957, after 6 months of treatment, 8 of 20 babies (40%) had trachoma.

Our clinical impression at that time was that the severity of the infection had been reduced and that there was less trachoma in the areas than before.

Since the preliminary report was published, the area has been surveyed every 6 months, at the beginning and at the end of summer, and the last survey was performed in March 1959.

DIAGNOSIS OF TRACHOMA

Before discussing the actual figures, it is important to define the clinical appearances which we diagnosed as trachoma. It is acknowledged that no two workers will agree exactly on the diagnosis of trachoma.

In the absence of adequate dark-room and slit-lamp facilities, the diagnosis was made by eversion of the upper lid and inspection of the

cornea, with the naked eye or loupe, in natural daylight. The following objective clinical diagnostic signs were looked for on the upper tarsal conjunctivae:

1. A reddened, velvety, papillary hypertrophy of the conjunctiva;
2. A lymphoid engorgement of the sub-epithelial portion of the conjunctiva, producing follicles;
3. A peculiar haziness and loss of transparency of the conjunctiva;
4. The presence of scarring, in its earliest form, producing a change in pattern of the blood vessels of the conjunctiva;
5. *Pannus*: Pannus is difficult to detect in the absence of a slit lamp. Microscopically demonstrable pannus appears very early in classical trachoma and is its first pathognomonic sign, according to many investigators. In this series, pannus was rarely demonstrable with the limited time and diagnostic means at our disposal.

Patients exhibiting the above objective signs, with or without pannus, were regarded as cases of trachoma.

It may be argued whether many of our cases were classical trachoma or were cases of trachoma dubium. Trachoma dubium is an early or mild form of classical trachoma, according to some. Cady,² however, on the basis of laboratory, clinical and field studies in Missouri, does not agree that trachoma dubium is an early form of trachoma. Trachoma dubium does not respond so well to certain antibiotics in the same way as classical trachoma does, and he regards it as a different entity. On the basis of our results with the antibiotics used in this trial, we are of the opinion that our cases were cases of classical trachoma.

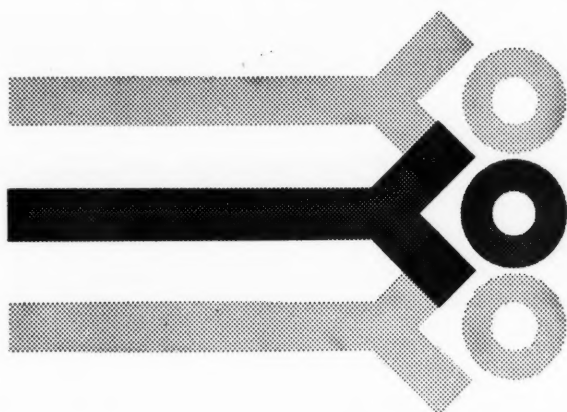
(a) *Babies*. In March 1958, 39 of 119 babies (25%) were found to have trachoma, and in September 1958, 12 of 59 (17%). Thus over the 3-year period from September 1955 to September 1958, the incidence of trachoma dropped from 63% to 17% (Fig. 1).

(b) *School Children*. In the original survey, 74 of 287 (26%) of the school children were found to have trachoma, as reported previously. By September 1958 the figure was 29 of 299 (10%). There was thus an improvement from 26% to 10% over the 3-year period.

* Member, WHO Expert Advisory Panel on Trachoma.

† Member, Bureau for the Prevention of Blindness in South Africa.

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Not only was the incidence of trachoma reduced, but the cases that were found to have trachoma after the 3-year period, both babies and school children, had the disease in a very mild form, and one had to look very carefully to see the signs, which were minimal.

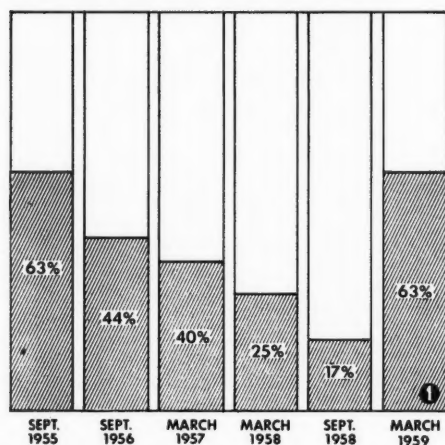


Fig. 1. Results found on subsequent surveys
— First field trial.

SECOND FIELD TRIAL

This was carried out in a nearby location, where agricultural workers and their families live under supervision. Achromycin ophthalmic ointment was used as the antibiotic. As stated in the preliminary report, a reduction in the incidence of trachoma from 76% to 7% in one year occurred in the treated area in the younger children and babies. This encouraging result was probably due to the thoroughness of treatment. In the control area, the fall of 76% to 51% was explained by the fact that an anti-fly and face washing campaign was started in all compounds in March 1956.

The control area was placed under treatment in March 1957.

In October 1957 the incidence was 43.5% in the compound previously used as the control (23 cases out of 53). The last survey, done in March 1959, showed an incidence of 12% in babies and 10% in school children.

Because of the good response to antibiotics by September 1958, we decided to suspend treatment during that summer and to re-assess the incidence in March 1959, in the first field trial area.

Results After 6 Months Cessation of Treatment. In young babies it was found that 64 out of 103 (63%) had trachoma (Fig. 1), whereas in the schools the incidence of trachoma rose to 14%.

DISCUSSION

It is clear that the incidence of trachoma can be reduced over a 3-year period to negligible proportions by the use of 1% chloramphenicol ointment 3 times daily for 3 days in each month during the summer. A drop from 63% to 17% in babies is of significance. It is also clear that on cessation of treatment a rise of trachoma in babies occurs, and after 6 months the incidence was the same as before treatment. It is evident that re-infection of the babies occurs, and that new-born babies will still get trachoma, unless they are all treated. In school children a much smaller rise occurs, and the rise is confined mainly to the younger age groups.

The problem of eradication of trachoma is a difficult and perhaps an impossible one. It is, however, possible to control it and reduce it to reasonable proportions and thereby considerably lessen the chances of blindness from trichiasis, by a simple regime of antibiotic ointment during the summer months.

To maintain the incidence at a low level, every baby born in an area where trachoma is endemic should have antibiotic instilled into its eyes during the summer for at least 3 years. In addition, all children entering school for the first time should have 6 months of therapy.

Who is to supervise and control therapy? The school teachers have been found to be suitable for instructing the school children how to instil ointment into their eyes, and they could well manage the new children entering school. The babies in the huts must be done by a Bantu field officer, who could be taught to recognize the signs of trachoma, and who must preferably reside in the area. His task will be to travel from hut to hut, supervising the parents. He could also, by virtue of his training, single out any school child who may have the disease and put that patient on to treatment.

The recent isolation and culture of the trachoma virus in China (1957),⁴ England and South Africa, and the possible manufacture of a vaccine against trachoma, has not changed the basis of treatment with antibiotics. A vaccine, while possibly preventing trachoma, does not supersede the need for treatment of the actual disease. It is not curative, and present cases must go on receiving treatment.

Trachoma is a disease which has a tendency to heal. In an average area the incidence drops with age from 60-70% in babies, to about 20% at school-leaving age.³

The use of chloramphenicol reduces the incidence to 10% at a much earlier age, thereby lessening the pool of infection and the chances of blindness in later years.

SUMMARY

1. The results of a 3-year field trial in treating trachoma with antibiotic ointment are presented.

2. The incidence in babies fell from 64% to 17%.

3. It is felt that this scheme should be widened to include most areas where trachoma is endemic.

We wish to record our thanks to the Bureau for Prevention of Blindness for permission to submit this report for publication.

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EPIDEMIC KERATOCONJUNCTIVITIS FOLLOWING CONTACT AT HARTEBESPOORT DAM

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A great deal of attention has recently been focussed on viral keratoconjunctivitis, since reports of epidemics have come to light from various parts of the world with greater frequency. The first descriptions of epidemics of keratoconjunctivitis were published in 1899, the most important paper being that by Fuchs. This has been followed by reports from several countries, and the condition gave rise to great anxiety during World War II when an epidemic broke out in San Francisco in 1941. Hogan and Crawford⁶ described this epidemic in great detail. In September 1946 a symposium was held on viral keratoconjunctivitis in which virologists, epidemiologists and ophthalmologists from America, Europe and Asia participated.

Braley³ summarized the clinical appearance of the disease into 4 stages:

Stage 1 is the acute phase in which the primary symptoms are those of a foreign body sensation and hyperaemia of the conjunctival blood vessels.

This is followed in approximately 48 hours by *Stage 2*, which is characterized by the development of large follicles in the conjunctiva. Pre-auricular lymph adenopathy is usually present during this time. A thick pseudomembrane may appear in the palpebral and at times with bulbar conjunctiva.

Stage 3 is the continued follicular conjunctivitis associated with commencement of corneal changes. These corneal changes produce photophobia and a blurring of vision. The corneal opacities usually begin on the 10th day of the disease.

Stage 4 is characterized by the disappearance of the conjunctivitis and a continuation of the keratitis.

The diseases which interest us in this paper are:

1. Epidemic keratoconjunctivitis;
2. Herpetic keratoconjunctivitis; and
3. The group caused by the adenovirus.

Epidemic keratoconjunctivitis is mainly differentiated from herpetic keratoconjunctivitis by the fact that in the latter the corneal opacities stain with fluorescein, *there is loss of corneal sensation* and there is a dendritic pattern in the corneal epithelium; whereas in the former the cornea does not stain, sensation is normal and the lesions are circular in shape.

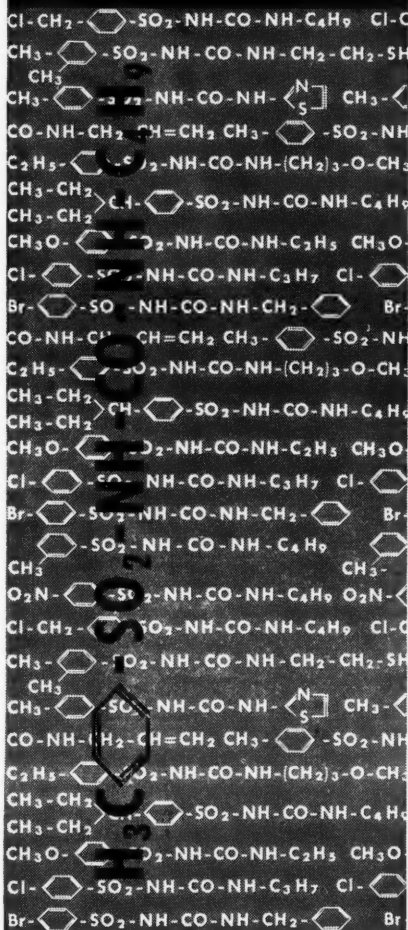
The adenoviruses produce pharyngoconjunctival fever. This is characterized by fever, pharyngitis and a non-purulent conjunctivitis. The cornea is not involved as a rule. The diagnosis may be confirmed in the laboratory by isolation of the etiological agent in tissue culture and by a specific rise in antibody titre in acute and convalescent sera.²

The present series of cases all gave a history of swimming in the Hartebespoort Dam (or hotels in the neighbourhood which use the dam water in their swimming pools) during the Easter weekend of 1959. Only those members of a family who bathed were affected by the disease, whereas those who refrained from bathing did not show any symptoms at all. No cases were seen where bathing took place at either an earlier or later date.

The interval between the bathing and the onset of symptoms was 5 to 8 days, commencing with redness and irritation of the eyes. Most of the cases seen were referred to the writer after they had been treated by their general practitioners for conjunctivitis and had subsequently developed keratitis.

The symptoms were severe pain in the eye or eyes with foreign body sensation, photophobia and lachrymation. In some cases the

Facts and Figures



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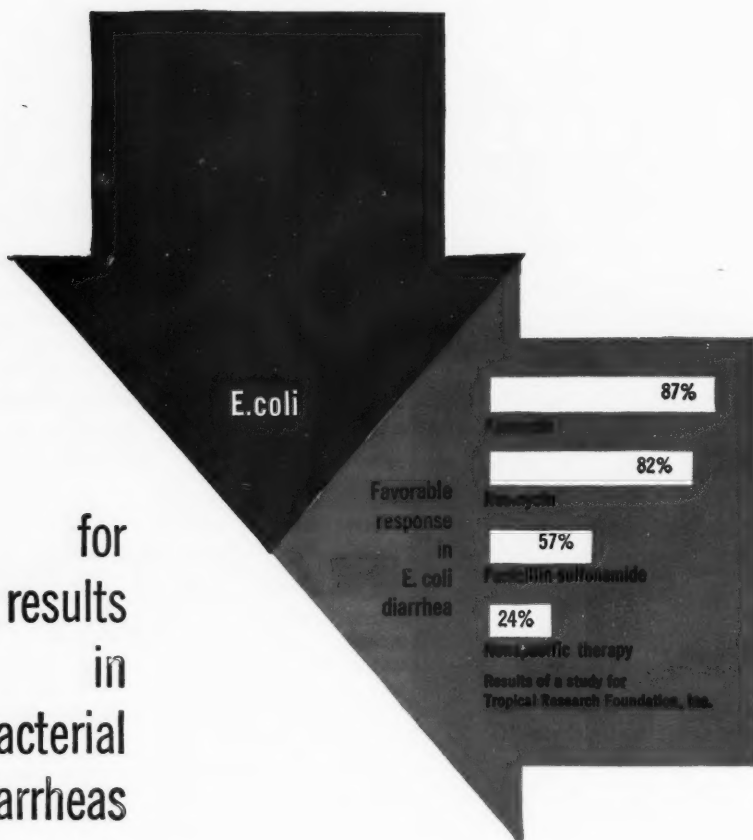
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eyelids were slightly swollen, but in not a single case were any vesicles seen on the eyelids. A mild, non-purulent conjunctivitis was present with slight follicular hypertrophy. All the corneae which were affected were relatively insensitive to touch. The corneal lesions were small and irregular, involving the epithelium down to Bowman's membrane. These lesions stained with fluorescein, and some of them had the characteristic shape of dendritic ulcers, but were considerably smaller. They were, so to speak, miniature dendritic ulcers. Each case had from 12 to 30 lesions on each cornea. After reaching a climax, which took about one week, the lesions gradually became reduced in size and density, and finally disappeared after a few weeks. In only one case was a mild aqueous flare observed.

One patient had a rather dramatic history. He states that he swam and also fished at Hartebeespoort Dam over the Easter weekend. He developed very fine blisters on his calves 3 days later. On the twelfth day, while in church, he felt acute pain in his left eye associated with a foreign body sensation. The sensation increased and he hurried to get attention from some acquaintance of his who instilled some local anaesthetic and was alleged to have removed the foreign body from his cornea. The pain subsided after the installation of the local anaesthetic, but it recurred later and persisted for several days.

The writer first saw him on 17 April 1959, 2½ weeks after the onset of the disease. The eyelids of his left eye were slightly swollen. There was a slight follicular hypertrophy of the lower palpebral conjunctiva. The cornea was insensitive and had several staining areas resembling miniature dendritic ulcers. The anterior chamber revealed no flare. Other ocular media, fundi and ocular tension was normal. There was no adenopathy and the right eye was perfectly normal.

The 12 cases ranged in age from 12 to 50 years. Only 2 cases (who happen to be husband and wife) had both eyes involved.

All cases except the youngest were given tetracyclines by their general practitioners, but the youngest case was seen before any treatment was instituted. No monocytes were observed in the smears taken from the conjunctiva, and no virus was isolated by the Polio Research Foundation.

No treatment seemed to alter the course of the disease. The corneal phase lasted 2-3 weeks and the scars gradually became fainter. Cortisone was not used, as serious complications have been reported from its use in cases

of dendritic ulcers. The writer has seen 3 cases of perforation of the cornea following topical use of the steroids in dendritic ulcers. Maumenee *et al.*⁷ mention the use of methylene blue in a 0.05-0.1% solution as of some value, but this was not used in the present series.

These cases were diagnosed as herpetic keratoconjunctivitis, as the affected corneae were insensitive to touch and, on staining with 2% fluorescein, small dendritiform lesions were seen.

The puzzling feature of the cases is the common history of swimming in the Hartebeespoort Dam. The curious question is why this particular epidemic only occurred over the Easter weekend. No cases were seen before or afterwards. The epidemic occurred in the South African autumn, which was preceded by a severe drought for about 2 months; hence little fresh water flowed into the dam. It was also unseasonably hot. This possibly provided a suitable environment for the virus.

Thygesen⁸ states that Beal's acute follicular conjunctivitis and pharyngo-conjunctival fever occur in epidemics in the fall of the year. In the outbreaks of the latter disease in San Francisco Bay in 1950 and 1951 transmission by swimming pools was evident.

Swimming pools have also been implicated by Cochburn,⁴ Bell,² and Fowle.⁵

SUMMARY

Cases of herpes keratoconjunctivitis following contact with water in the Hartebeespoort Dam, over the Easter weekend 1959, are described.

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ALCOHOLISM WITH COMPLICATIONS

AN ESTIMATION OF ITS PREVALENCE AMONG THE EUROPEAN AND NON-EUROPEAN (AFRICAN) COMMUNITIES IN SOUTH AFRICA

B. SEREBRO, B.A., M.B., B.CH., B.A.O. (T.C.D.)

Johannesburg

The Jellinek definition¹ and its associated formula^{2,3} allows the estimation only of the number of 'alcoholics with complications'. The term 'alcoholic' has a different meaning and connotation for various people, and includes terms such as 'heavy drinkers', 'dipsomaniacs', 'inebriates', 'intemperates', 'drunks', 'acute alcoholics', 'compulsive drinkers', 'problem drinkers', 'impulsive drinkers', 'addictive drinkers', 'behavioural drinkers', 'cyclical drinkers', as well as 'chronic alcoholics'.

The terms 'alcoholics with complications' formulated by Jellinek in the first place, makes sure that there is a pathological element present, and admits therefore that an individual must of necessity be ill. The dimensions of the illness are immaterial. Secondly, the term 'alcoholics' immediately indicates the material agency implicated in the aetiology of the 'complications', viz. alcohol.

At this level, a formula based on 'alcoholics with complications', despite its wide ramifications, is a practical working method, although the term 'complications' has a wide connotation. Jellinek and Keller,⁴ give the following definition for alcoholics:

'Alcoholics are those excessive drinkers whose dependence upon alcohol has attained such a degree that it shows noticeable mental disturbance, or an interference with their bodily or mental health, their interpersonal relations and their smooth social and economic functioning; or who show prodromal signs of such developments.'

The World Health Organization⁵ in 1952 proposed the following *ad hoc* definition:

'...any form of drinking which in its extent goes beyond the traditional and customary "dietary" use, or the ordinary compliance with the social drinking customs of the whole community concerned, irrespective of the aetiological factors leading to such behaviour and irrespective also of the extent to which such aetiological factors are dependent upon heredity, constitution, or acquire physiopathological and metabolic influences.'

The Sub-Committee considered it appropriate to use the preceding definition to define the term 'excessive drinking', and added to it the Jellinek and Keller definition. The WHO definition is thus identical with the Jellinek and Keller formula; and wider in that it adds 'they therefore require treatment'.⁵

In 1955 Keller and Efron⁶ proposed a definition wider in scope than that of Jellinek and Keller's and WHO's formula, viz.:

'Alcoholism is a chronic illness, psychic or somatic or psychosomatic, which manifests itself as a disorder of behaviour. It is characterized by the repeated drinking of alcoholic beverages, to an extent that exceeds customary dietary use or compliance with social customs of the community and that interferes with the drinker's health or his social or economic functioning.'

Many special categories of alcoholics have been indentified, including 'alcohol addicts', who cannot control their drinking, and 'alcoholics with complications'. The latter are those whose excessive drinking has led to recognizable physical or mental sequels.

These authors say that this formulation incorporates a definition of excessive drinking and of 'alcoholics with complications'; however, they admit the inadequacy of this definition, and state that other and quite different definitions may be correct according to their specific application. They feel that their definition should be understood as the label which identifies a certain population.

The Jellinek formula employs 3 factors to obtain an estimate of the prevalence of alcoholism from the reported liver cirrhosis mortality in a given population. These are:

1. The proportion of deaths from liver cirrhosis estimated to be attributable to alcoholism;
2. The proportion of all living alcoholics with complications who die from liver cirrhosis;
3. The ratio of all alcoholics to alcoholics with complications in the population for which an estimate is desired.

The first two factors are employed to obtain an estimate of the number of alcoholics with complications, and the third to obtain a comprehensive estimate of prevalence.

The expression 'alcoholics with complications' is defined to mean those individuals who, as a result of prolonged excessive drinking, suffer from one or more of the complicating diseases of alcoholism.⁷

The formula is expressed algebraically as follows:

$$A = \frac{(P D) R}{K}$$

where A = The total number of alcoholics alive in a given year.

D = The number of reported deaths from liver cirrhosis in that year.

P = The percentage of such deaths attributable to alcoholism.

K = The percentage of all alcoholics with complications who die of liver cirrhosis.

R = The ratio of all alcoholics to alcoholics with complications.

P: *The Proportion of Reported Deaths from Liver Cirrhosis Attributable to Alcoholism.*⁸ Joliffe and Jellinek⁸ obtained a preliminary estimate of P for the United States of America by a mortality trend survey covering a 30-year period, which included preprohibition, effective prohibition, national prohibition, and post-prohibition periods. They concluded that the evidence 'definitely indicates that a certain portion of deaths from cirrhosis of the liver related to chronic habits'. The size of this portion was estimated on the assumption that the part of the marked decrease in the liver cirrhosis mortality trend during the period of effective prohibition in the United States of America, which was not due to a decline in general mortality, was attributable to the unavailability of alcoholic beverages and consequent arrest of the development of liver cirrhosis in many alcoholics.

K: *The Proportion of Alcoholics with Complications who Die of Liver Cirrhosis.* The value of K in the Jellinek formula is derived on the basis of two proportions:

1. The percentage occurrence of liver cirrhosis among all alcoholics with complications;
2. The percentage of alcoholics with complications suffering from the disease who die as a result in any given year.

Sample analysis of statistical data of liver cirrhosis autopsies of alcoholics with complications in the United States of America and European countries ranged from 1.2%–19.8% in 12 samples. Popham⁹ says that 'probably not more than 10% of those found with liver cirrhosis at autopsy had died from this cause'. By 1951 autopsy data from 100,000 alcoholics with complications had been compiled from numerous American and European sources. On this basis K was calculated. Accordingly, the proportion of alcoholics with complications alive in a given year who die from cirrhosis of the liver (K) was assumed to be 0.694%. The constant K may probably be taken as 0.694% for all countries, as it is based on international material in which the variation was a minimum.¹⁰

R: *The Ratio of All Alcoholics to Alcoholics with Complications.* Jellinek's estimation of the proportion of alcoholics with complications among all alcoholics in the United States of America represented the experience of various American clinics for which data on large numbers of alcoholic patients were available and where, for the United States of America R was taken as 4.0, and the number of alcoholics with complications, derived by means of the constants P and K from reported liver cirrhosis mortality, is multiplied by this num-

ber to obtain an estimate of the number of alcoholics with and without complications.

Jellinek used admissions to clinics to obtain data, or used nutritional standards of a country for information on whether or not alcoholism was limited to the lowest economic levels of the population.

In countries of high nutritional standards such as Canada, Sweden and the United States of America, the frequency of complications in the alcoholic population apparently tends to be low. Conversely, in countries of relatively low nutritional status, Jellinek found, e.g. in Chile and Italy, a high frequency of complications.

Jellinek has assigned a value of 1.6 for R in respect of Chile, and 1.7 for Switzerland and the other Scandinavian Countries.

THE TOTAL NUMBER OF ALCOHOLICS ALIVE IN A GIVEN YEAR

Broadly, the population in South Africa is divided into White, Native (non-European), Asiatic and Coloured.

The mid-1957 estimate of population was as follows:¹⁴

All Races: 14 million.
White: 2.9 million.
Natives: 9.5 million.
Asiatics: 431,000.
Coloured: 1.3 million.

In applying the Jellinek formula we deal with factor P in the first instance, i.e. the proportion of reported deaths from liver cirrhosis.

Jellinek was fortunate to be able to study records going back 30 years in the United States of America as well as records from the European Continent, concerned with a society in an environment of established customs and tradition. In Europe and the United States of America population movements tended to be fixed for certain periods, in contrast to South Africa—a young country with a generally dynamic, pioneering and unsettled population. It must also be borne in mind that with the establishment of secondary industries in this country there was, in addition, an upsurge and movement among the Afrikaans-speaking section¹¹ of our European population, beginning from about 1925 onwards. This was a movement from the rural agricultural towards the urbanized industrial areas, and was the beginning of the industrialization of the Afrikaans-speaking people. These people have tended to remain in the various cities—but have not yet settled down completely, and still tend to move from city to city in their various

fields of occupation. There is evidence of this, e.g. in the local authority (Johannesburg Municipal) undertakings, where the man-power turnover has reached alarming proportions averaging well above 50% per annum.¹² Furthermore, movement of workers seems to occur with the development of new areas, such as the gold and uranium mining regions in the Orange Free State and the Klerksdorp area, and surveys are difficult to conduct. The European middle class which is connected with commerce and industry, is the least mobile and the most settled portion of our European population, and surveys in this community would be facilitated, but would not be representative of our European population.

The non-European (African) population has likewise migrated both towards the mines and secondary industry, and paralleled the European movement in time and direction, so that any attempt to correlate drinking patterns and habits with mortality as a result of cirrhosis of the liver, is not a practicable as we are dealing with an unsettled population.

The reporting of deaths generally among the non-European (African) population is beset with difficulties, due to factors such as distance, native customs, absence of medical advice and service, as well as lack of certification and registration.¹³

Again the derivation of K in the formula was, and still is, a formidable problem in South Africa. In the first place, we have no statistics available which can provide an estimate of the 'alcoholics with complications', so that 'the percentage occurrence of liver cirrhosis among all alcoholics with complications' cannot at present be computed. However, we may in the future, as a result of propaganda and education on alcoholism, be able to estimate, only on a random sample basis, the 'percentage of alcoholics with complications suffering from the disease who die as a result in any given year'. In order to arrive at this factor, medical practitioners certifying deaths, should be acquainted with all the facts relative to alcoholism. This state of affairs can only be brought about by a wider understanding of concepts concerned with alcoholism. To further this, it is imperative that the physiopathology arising out of the 'mis-use' of alcohol be taught in all our Medical Schools, so that future generations of medical men will be able to appreciate the implications of such illness. Only then will death certification be on a fully adequate basis in this respect.

Jellinek was able to study autopsy data from 100,000 alcoholics from both American and

European sources; in contrast to the situation in South Africa, the following figures relative to cirrhosis of the liver are of interest:¹³

		Cirrhosis of the Liver			
		Total	Male	Female	
Total certified European deaths in 1955:	23,013	163	103	60	
Total certified Coloured deaths in 1955	21,016	35	28	7	
Total certified Asiatic deaths in 1955:	3,659	17	14	3	

Figures for non-European deaths are not available.

Taking into consideration our total population, the reference that one can draw from 'cirrhosis of the liver', is negative; and although one may assume that the general habits of our European population are no different from those of their American and Continental counterparts, and so assign an apparent value to South Africa, yet it will require a concerted effort on the part of the Government and the medical profession before a real evaluation of K can be derived at.

The value of R was arrived at by Jellinek from examination of the records of various clinics, being the ratio of all alcoholics to alcoholics with complications. He found that the nutritional standards in Canada, Sweden and the United States of America were high; conversely, he found a relatively low nutritional status in Chile and Italy, with a high frequency of complications.

From my own experience with European alcoholics in South Africa, I found the nutritional standards to be high and the frequency of major complications, the classic alcoholic cirrhosis of the liver, to be low. However, these cases present with acute liver enlargement (hepatomegaly) with pain (hepatodynia), both reversible with treatment.

In the non-European (African) population, the nutritional status is lower than that of the European population, so that one would expect to find a high incidence of cirrhosis of the liver. Observations by clinicians working at Baragwanath Hospital, Johannesburg, indicate that cirrhosis due to chronic alcoholism is negligible.¹⁵ However, these clinicians find a high incidence of alcoholism with delirium tremens and alcoholic hallucinosis. Lamont and Blignault¹⁶ found in 258 male Bantu admissions to Weskoppies Hospital in 1952, 18 cases of delirium tremens and 12 cases of alcoholic hallucinosis. The latter presented a clinical pic-

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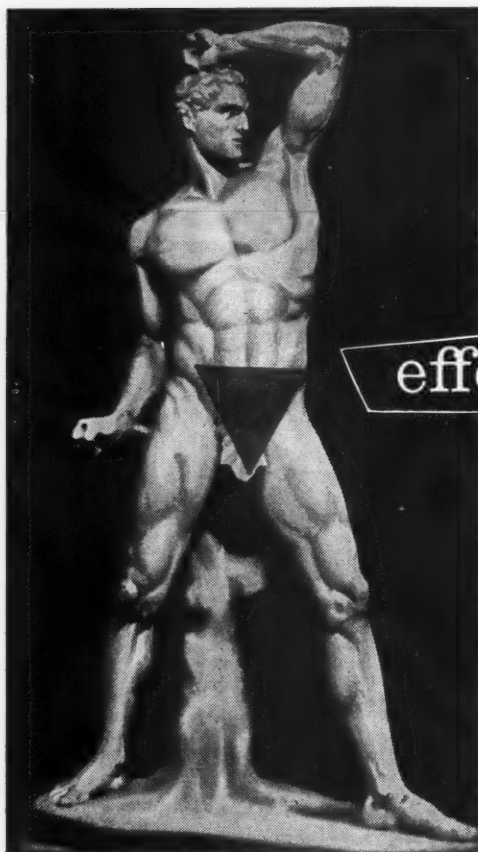
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ture somewhere between schizophrenia and delirium tremens, but they all cleared up completely in a short period. This indicates that the Bantu clinical material admitted to institutions is not of the 'chronic' variety.

These observations create an anomalous situation in the determination of R as well as of P in the Jellinek formula, while K must be specifically determined for South Africa; alternatively, a different method must be established for the estimation of prevalence of 'alcoholics with complications' in our non-European population.

In South Africa, in so far as the European is concerned, it has been the Mental Hospitals, Retreats, Work-Colonies, and licensed Mental Nursing Homes that have been admitting alcoholics with complications. The European population is ageing—the tendency particularly in Mental Hospitals has been for the admission of the real 'chronic', 'old standing' alcoholic who manifests extreme complications whether mental or physical; while the 'young' alcoholic with a drinking history of 1–2 decades is still averse to accepting institutional treatment, and any statistics are thus not representative of our population. Here, the acceptance by the hospital authorities of the responsibility towards this illness, can produce a statistical picture of the overall state of alcoholism which will enable health authorities to predict, plan and combat alcoholism and enable the computation of R in the Jellinek Formula.

Secondary industry in South Africa gives employment to a great mass of both the European and non-European section of our population. I attempted to arrive at an estimate of prevalence of alcoholism among Europeans in industry, to serve as a cross section of the situation in this country, using the control of alcoholism in industry as a measure of efficiency in management. I found that as the efficiency of management varied, so likewise did the control. Thus this approach could only supply an index of managerial efficiency, but not an estimate of prevalence.¹⁸

At the present time, however, it is impossible to arrive at any figure of prevalence, either for alcoholism generally or for alcoholics with and without complications in our South African environment. It appears that other methods may have to be adopted in surveys in this field before any progress can be made in the various aspects of the problems.^{19, 20} Furthermore, such surveys must be a constant feature until such time as the various communities in South Africa become settled and established.

SUMMARY

The Jellinek definition and formula allows the estimation only of the number of 'alcoholics with complications'.

There have been various definitions for 'alcoholics with complications', including the WHO definition, which is identical with that of Jellinek and Keller, except that it adds 'they therefore require treatment'.

The Jellinek formula derived from the definition gives an estimate of prevalence, expressed as the total number of alcoholics alive in a given year. The factors involved in the formula are:

D = The number of reported deaths from liver cirrhosis in that year.

P = The percentage of such deaths attributable to alcoholism.

K = The percentage of all alcoholics with complications who die of liver cirrhosis.

R = The ratio of all alcoholics to alcoholics with complications.

Jellinek was able to draw on surveys spread over long periods; while significant autopsy records enabled him to arrive at a constant (K), and R was arrived at from the study of admissions to clinics, as well as by study of nutritional standards in various countries.

In South Africa with a moving, unsettled population, surveys are difficult to conduct, except perhaps among our European middle class. This would not be a representative sample.

Surveys among the non-Europeans are difficult, and are hampered by such factors as distance, native customs, absence of medical advice and service, as well as lack of certification and registration.

Death certification by the profession is enhanced by education and propaganda. This is not well advanced at present.

Among 2.9 million Whites the total number of deaths from cirrhosis of the liver was 163 (103 male : 60 female) in a total certified European deaths of 23,013 (in 1955).

Among 1.3 million Coloureds, the total number of deaths from cirrhosis of the liver was 35 (28 male : 7 female) in a total certified Coloured deaths of 21,016.

Figures for non-Europeans (Africans) are not available.

Jellinek found nutritional standards high in Canada, Sweden and the United States of America and lower in Chile and Italy, the latter with a high frequency of complications.

European alcoholics in South Africa have a high nutritional standard. Among the non-Europeans the nutritional standard is lower

than that of Europeans, and one expects to find therefore a high incidence of cirrhosis of the liver in the alcoholic. Such expectation is contrary to the observations made by clinicians at Baragwanath Hospital, and creates an anomalous situation in the determination of R, P and K in the Jellinek formula, in so far as the non-European is concerned.

Furthermore, the prevalence of alcoholism *per se* or alcoholics with and without complications, cannot be approached in South Africa, at present, in the light of the Jellinek formula. However, other methods will have to be used in repeated surveys, until our communities become settled and stabilized.

It is opportune here to acknowledge my appreciation to Prof. L. A. Hurst of the Department of Psychiatry and Mental Hygiene, of the University of the Witwatersrand, for his co-operation and interest in this publication.

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ON GROUP THERAPY WITH THE ASSISTANCE OF UNTRAINED STAFF

IN THE MANAGEMENT OF AFRICAN PSYCHOTICS

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There are only 8 mental hospitals in South Africa which provide comprehensive psychiatric facilities for African patients. In these institutions, which serve a population of about 11,000,000 non-European people, they are cared for by a sprinkling of trained European nurses, assisted by a number of untrained African staff. Grave as this situation is here, it is nevertheless better than anywhere else in Africa, where the dearth of suitably trained nurses happens to be so acute that a meeting of mental health specialists recommended that 'a solution to this problem should be sought as a matter of extreme urgency'.¹

The problem of training adequate numbers of African staff for these mental hospitals has to be faced. Encouraging steps in this direction are the full training of African nursing staff in several of our hospitals as from the middle of this year, and the training of Coloured nurses in one of our hospitals for several years past. A shortage of professional staff, however, remains a serious factor in a few of our hospitals where very little is being done for our non-European female patients.

This paper describes certain experimental projects which were found to supply some answer to this problem. These were based on the introduction of a modern system of group therapy procedures into 3 African female psychotic wards, which were being run along tra-

* This work was done while the author was a Medical Officer at Sterkfontein Hospital, Krugersdorp.

ditional lines. The African female staff, who had to take either full or partial responsibility for the patient groups thus formed, varied considerably in their experience in dealing with psychotics. None was a trained nurse and many of them were previously engaged in ordinary hospital chores such as cleaning or running errands.

Details concerning these procedures are given in the hope that they may be of interest to those associated with the operation of mental hospitals, not only in this country, but also anywhere else in Africa; but is not intended as a criticism of the work done in our hospitals.

PRESENT CONDITIONS

In a typical large mental institution there may be some 1,600 patients. Of these about one quarter are likely to be African female psychotics, varying widely in their ages, mental disorders, physical ailments and behaviour disturbances.

These patients (some 450) are cared for by one medical officer, 3 sisters, 2 staff nurses (all European) and about 25 untrained female African assistants. Emphasis is laid on the custodial care of patients. According to our Mental Disorders Act, 'a person . . . permitting . . . (a certified patient) . . . to escape or to attempt to escape . . . shall be guilty of an offence; liable on conviction to a fine not exceeding £100, or to imprisonment, with or without hard labour, for a period not exceeding two years, or to such imprisonment without option of a fine or to both such fine and imprisonment'.²

Medical care concerns itself mainly with attention to the general medical and surgical needs of the patients. From the psychiatric point of view it is, basically, a question of sedative, electro-convulsive and tranquillizer therapy. Patients are interviewed, and subjected to a full physical examination on or shortly after admission. They then have to be interviewed once a week for the first month and subsequently once a month for the first year. After this once every 3 months for the second and third years, then once every 6 months for as long as the patient remains in hospital.

The length of time to be spent with a patient is not laid down; less than a minute can be enough. Longer 'periodical reports' are required at the end of the first, second, third and fifth years after admission, and at 5-yearly intervals thereafter. A mental hospital doctor, having completed this routine, can in good

conscience leave the hospital feeling that he has done his work. The impression this makes on the nursing staff is that the *medical officer is not part of the team looking after the patients*, and consequently they feel that he should not be troubled or concern himself with what they regard as 'nursing problems', but which are, in fact, psychiatric problems in the truest sense of the word.

PRELIMINARY MEASURES

In addition to seeing an average of two new admissions every week, it became necessary to see the patients receiving insulin coma, electro-convulsive and chlorpromazine therapy at weekly intervals as well. Because there is no psychiatric social worker attached to the hospital, time also had to be found to interview patients about to leave hospital. This provided an opportunity of assessing home and work problems, and of advising on such matter as attending follow-up clinics, obtaining maintenance therapy when required, dealing with stigma difficulties engendered by the illness, etc. An average of two patients left the ward every week. Certain patients required more interview time than others, e.g. those who were receiving combined electro-convulsive and chlorpromazine therapy in the course of clinical investigation; a group of potentially dangerous epileptic psychotic patients, who while being investigated from the point of view of work-therapy, had to be observed at frequent intervals in order to detect and deal with any aggressive tendencies before they could become disruptive. This was made possible by seeing these patients in open groups of 10 to 15 people, for a $\frac{1}{2}$ to $1\frac{1}{2}$ hours a week. These groups will be referred to as 'Treatment Groups'.

The system in which one assistant was detailed to take out 1 to 5 of the better patients in working parties had to be reorganized. Such a party would previously, e.g. spend a whole day doing nothing but potter about the Matron's private garden, while other, less active patients would be left to linger in the wards with a minimum of attention. Special permission had to be obtained from the Physician Superintendent to step up the size of the 'Work Groups' from 10 to 15 patients or more, so as to include the less active. This meant that the assistant could no longer be held responsible for carrying out her ordinary chores. She now had to devote more time to the patients themselves, mainly by encouraging them in some form of activity. As she no

longer had to take the blame for slovenly or incomplete menial work, she was able to devote more of her attention to conversing and working with and simultaneously guiding instead of commandeering the patients in her group. This was a departure from the practice at the time (even in our European Wards) of nurses or attendants merely doing menial work and getting the patients to assist her if she could. In these wards the criterion of the hospital's activity was a faultless Matron's round. As a result of this, the well-being of the patient was of secondary importance.

In order to re-orientate the emphasis of the working of the hospital, the existing social structure of the wards was changed into one approaching a therapeutic community. These steps had to be taken in order to give the lay assistants an opportunity of learning to deal with various types of patient groups. They were instructed in every case by the trained nurses or the doctor.

START OF THE PROJECTS

To begin with, the nurses were allowed to arrange the group meetings in accordance with their own ideas. The doctor sat before a large table, covered with a white tablecloth. A vase of flowers and the case notes were placed on it. The patients were seated on two rows of benches on the other side of the table. The Sister posted herself behind him and the interpreter to the right of the patients. These two remained standing. The meetings were held in a rather small, bare room. As the patients in the back row could not make themselves properly heard, they gradually formed themselves into a circle. The fact that they were permitted freedom of movement under the doctor's surveillance was an indication to the staff that rigidity was unimportant and that, on the contrary, a certain amount of freedom was desirable. After the third meeting the interpreter began to sit down with the patients. This was most significant in her case as she had never in her 13 years of working in the hospital remained seated in the presence of European staff. It was many sessions later that she stopped bobbing up and down each time a European staff member walked in or out, although she never quite lost this habit.

It took some time before the concept of the group being 'free' became accepted. Every time a patient walked in or out in the middle of a meeting, the interpreter became obviously anxious and hastened to deal with her by ordering her to get out or remain seated. Even-

tuall, however, she could tolerate this kind of behaviour with equanimity. Although patients walking in and out of group meetings at will constituted a nuisance at times, it was felt to be worth tolerating as it helped to create a relaxed and informal atmosphere.

In this newly created climate it was possible for the doctor to practise psychotherapy. This was done by:

1. Getting the patients to accept that they were mentally ill, and to regard this as a breakdown in health, thus helping to make them amenable to medical treatment.

2. Guiding the group discussions along the lines of their fears, quarrels, suspicions, hatreds, loves, etc. away from stereotyped complaints such as headaches, pain in the chest, weakness, stomach ache, etc. which were almost always rationalizations for their being in 'hospital.'

3. Encouraging the patients to relate to one another by obtaining their opinions on the behaviour of their fellow inmates; allowing them to decide amongst themselves the type and amount of work to be done by individual patients and discussing staff complaints of laziness, rudeness, unco-operativeness, etc. on the part of the patients.

4. Discussing general complaints about the food, accommodation, clothes, etc. and by generally approving of any form of constructive concerted activity.

5. Dealing with common group anxieties such as being away from home or not hearing from relatives or friends; and common group tensions engendered by real or fancied favouritism or coercion practised by the staff.

The crucial result seems to have been that the patients acquired a new concept of the doctor and the attendants as healers and teachers, and not merely as warders.

THE TREATMENT GROUPS

The idea of seeing and dealing with patients in groups gradually became accepted routine over a period of about 4 months. In general, more progress was made with the therapeutic than with the work groups. Within the former category the following groups of patients were regularly seen:

1. New patients' group.
2. 'Insulin coma' group.
3. Electro-convulsive therapy patients' groups.
4. Chlorpromazine patients' groups (3).
5. Combined electro-convulsive therapy and chlorpromazine treatment groups (3).
6. 'Monthly interview' patients' group.
7. Group meetings for patients who were due for discharge.

Despite the fact that the therapist was only able to spend the relatively short period of 6 months with these patients, the clinical impressions, which will be described presently,

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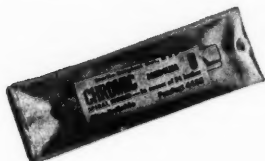
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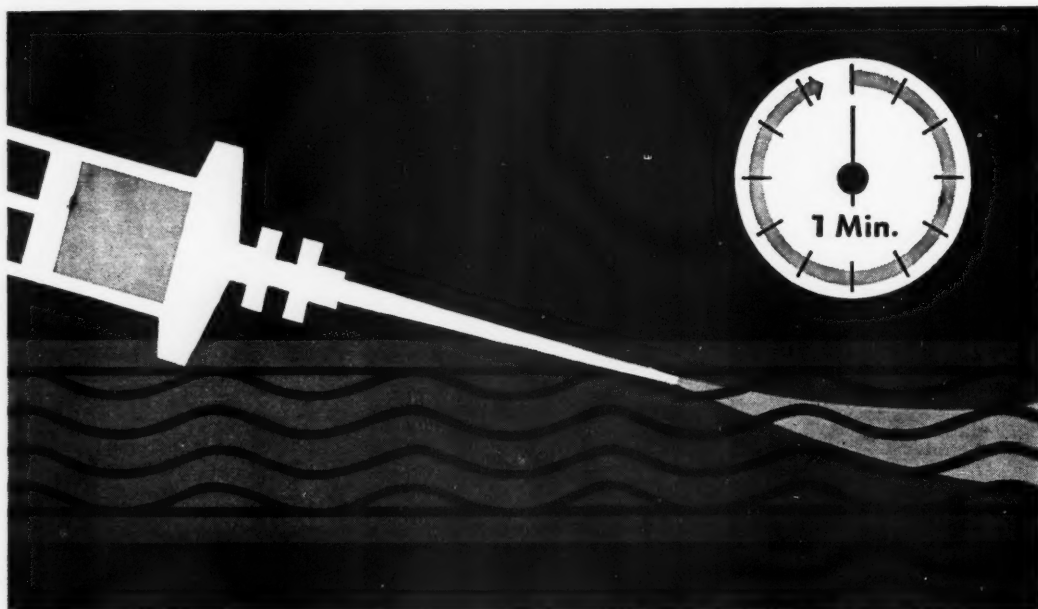
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were only a fraction of the sum total gathered at these meetings. These impressions were selected because they illustrate the kind of information which is usually not obtained during customary office interviews.

The aforementioned group meetings were attended by the author for a period of 4 to 6 months only, owing to his being transferred to another hospital.

It is an unfortunate fact that many of these patients equate being in hospital with being detained in a goal, not only because of a disturbance in their powers of judgment, but also because of their experiences leading up to their admission. Quite commonly the first step towards certification consists in being picked up by the police for creating a disturbance. The patient may then have to spend a variable length of time in goal while waiting for a bed in a mental hospital. Regardless of whether the apprehending officers are European or African, the patient develops a fear of and prejudice against them. These feelings are transferred to the hospital staff. Almost all our patients in fact believed that the hospital staff were in collusion with the agents who brought them there. Thus it happens that, almost regardless of a patient's diagnosis, one begins by dealing with a hostile, resentful, unco-operative and resistive individual whose real symptoms and signs may have become obscured by a rational fear and apprehension. The position is then aggravated by cutting the patient's hair off and having her exchange her clothes for hospital regulation wear in the interests of hygiene. Coloured, Indian and Westernized Africans are usually spared this indignity, but these are expected to eat and drink out of galvanised zinc mugs and dishes, while cutlery is confined to spoons only.

Most African psychiatric patients appear to have a very mixed impression of what a European doctor actually is and does. In these groups were found patients who actually looked upon him as being a magician, a seducer or a suitor in marriage. Patients would take anything up to 5 weeks to learn that the doctor's asking of questions was relevant only to their treatment or discharge. This understanding was often reflected for the first time in a quiet, or even 'mute' patient becoming a little talkative. Thus one patient, a paranoid schizophrenic, had been aggressively sullen at group meetings for 5 weeks. During this time she said nothing beyond 'shut up' or 'your talk has no interest for me' and then kept quiet. She had been placed on insulin coma treatment and was most unco-operative in

subjecting herself to it. At the fifth meeting, however, she unexpectedly asked:

'Why are the staff and other patients fighting with me every day?'

'Perhaps they can't find a better way of making money', was the reply.

This made her think a bit. After which she said:

'I'm very tired of fighting back. I see that I cannot win. Why don't you kill me and finish this nonsense'.

As she partook in the ensuing conversation, it became clear that this was not an isolated attitude on her part, but that many patients, when coming round from this treatment, had similar feelings. The fact that she now belonged to a group where she could talk freely and in which she could share similar feelings with others and the doctor, almost certainly expedited therapy.

Occasionally in the course of conversation within the group, patients who had previously been asked the same questions over and over again, and had become habituated to always giving the same answers, would deviate from these and freely offer fresh information. Thus, an alcoholic psychotic patient had for many years, on being asked how long she had been in hospital, consistently replied, 'forty thousand years'. When her opportunity came to speak in the group, she got up and addressed it. The gist of what she had to say was, that although she was not well educated, she realised that forty thousand years was a very long time 'even if a year was only as short as a month'. She knew she had been in hospital for only a number of years, but by replying in this way she said she hoped she would amuse the doctors who would then perhaps show their appreciation of her wit. Never before had she revealed this which showed that she did possess a certain amount of insight into her behaviour.

While the practical results of some of these groups are reported elsewhere,^{3,4} results with the chlorpromazine groups are perhaps more relevant to the present discussion and worth citing. Owing to a fairly rapid coming and going of medical officers over the period of 2 years immediately preceding the writer's institution of groups, a relatively large number of patients had been placed on chlorpromazine without any medical follow-up. Certain patients had not been seen for as long as a year after being placed on the treatment. The writer began seeing these patients in 3 groups of 17 persons each at weekly intervals. After 3 months he had not only come to know the

patients fairly well, but had also obtained a good idea of what their tranquillizer requirements were. At the end of this period 10 patients were allowed to leave hospital, 14 patients (of whom 5 were non-productive, convalescing tuberculars) were found to require only maintenance chlorpromazine therapy, while 27 patients were found to be showing a limited or no response to the therapy, and were taken off it without producing any change in their mental condition.

It seemed that devoting 3 hours a week to these patients justified itself not only therapeutically but economically as well.

THE WORK GROUPS

When a group of patients was not engaged in a consultation with the doctor (which, unfortunately, was only once a week for about an hour at a time) the problem was what should be done with them during the rest of the time. Previously many of them merely sat around the wards doing very little or nothing at all. This was, of course, hardly conducive to a therapeutic process. The idea was now conceived of finding some or other kind of useful work for the patients *qua* group. The importance of patients doing actual work, notwithstanding its nature, is that it serves as a means of getting them to enter into a relationship with one another, thus bringing them into closer contact with reality, and helping them to emerge from a continual dream state.

There was great difficulty in finding such work, for several groups containing as many as 15 patients. It must be emphasized that in view of the staff shortage it was impossible to have smaller supervised groups. Some of the European wards in which 5 or 6 of the better patients were employed for domestic work were said to be unable to absorb a larger number. After much pleading, however, a few of these groups were successfully placed. In one case, with the active co-operation of the medical officer in charge of a European ward, the patients were supervised by a European female patient who had a passion for gardening. She positively welcomed the opportunity of directing a *corps du jardin*, and speedily developed an enthusiastic gardening group. It is important to note that the patients concerned were all chronic schizophrenics with gross deterioration of personality.

This furnished evidence for believing that giving these patients a certain amount of work, together with a measure of freedom in

conducting themselves, did not produce any danger of escape and impulsive behaviour, etc. but, on the contrary, made them more amenable to other forms of therapy; consequently their behaviour improved.

Towards the end of November 1958, the hospital farm manager urgently needed patients to help with weeding and grass cutting. This was a good opportunity for mobilizing the last few available assistants. To begin with, one of them was sent out in charge of 20 of the most chronic and anergic schizophrenic patients. Within a fortnight this group was causing much comment by eagerly queuing up in front of the door of the ward to go out to work. This led to the belief that being allowed to leave the ward, in a party, under what amounted to token supervision only, was appreciated by the patients to the extent of their accepting it as an incentive to work.*

This reaction was a surprise to all, particularly because of the poor patient material that had to be dealt with. A good case in point was a patient who, for the best part of 5 years continuously sat in one corner of the ward—to the extent that the brick wall along which she leant had begun to show a grease patch. Within 10 days of being allowed out she had become the group's best wheel-barrow operator.

Shortly after this group had proved itself, 3 more groups of similar patients were established, 2 of 20 and the third of 40 patients. In order to make more of our lay assistants available for group work, certain economies in other directions had to be made. Thus instead of each of the 3 wards concerned having its own messenger girl, they began to co-operate; consequently one was found adequate for most duties. The necessity of getting patients to participate voluntarily in their tasks was constantly emphasized upon the assistants. Thus an assistant who had previously only taken a few patients to pull the food trolley to and from the main kitchen, could now make a big 'affair' of it, giving 10 to 20 patients the opportunity of going for a short walk. Other assistants, who used to look upon patients as being in the way when cleaning the dormitories, now began to vie with each other as to who could get more patients involved in the

* It was found impossible to use condemned items of clothing, shoes, sheets, blankets, etc. from the European wards for use as incentive rewards for these patient groups, as these potentially useful items had to be burnt under supervision, in conformity with hospital regulations.

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[D5]

job. Thus they tried to involve the patients in their own work; if there was nothing in particular to be done, they used to take them out for walks.

As these measures came into effect, the wards began to take on a completely different atmosphere. There was an obvious decrease in the incidence of quarrels, noise, physical traumata, etc. with a great lifting of the oppressive atmosphere which used to characterize them; also staff morale and co-operation took a marked turn for the better.

DISCUSSION

In spite of the fact that conditions in mental hospitals are very difficult, the scheme of dividing patients into groups as outlined here was found to be of considerable benefit in the general running of the wards. It was also beneficial to the patients themselves.

The African lay assistants* had little difficulty in learning to deal with patients in these projects. Having acquainted themselves of their tasks, they were never subsequently found in need of any of the more detailed information which mental nursing students are expected to acquire. This being the case, there would appear to be some logic in demarcating this type of activity as a specific work role in the mental health team and calling the assistant, e.g. a 'Therapist'. For the future training of such therapists, this work suggests that a scheme such as the following is both practical and realistic:

To begin with, they would have to possess suitable personalities for the task, i.e. they would have to be able to talk, play and work with patients without undue anxiety, without becoming emotionally involved or callous. Groups of 4 to 6 would be attached to an experienced therapist for 3 to 6 months for purposes of methodological education and emotional support. It is necessary for assistants in charge of groups to possess an elementary clinical knowledge of how to deal with psychotic patients, as well as a knowledge of how to keep them usefully occupied. Those assessed suitable for the work would attend seminars conducted by the sister and psychiatrist working with them, in which they would learn these essentials. Instead of having to write and pass examinations they would be issued with certificates of competency by the

* Very few of the assistants concerned had reached a Standard VI level of education.

doctor, nurse and therapist involved in their training, once they had acquired sufficient ability.

A factor not previously mentioned, militating against the effectiveness of such a project, would be the long-established practice of transferring doctors, after relatively short stays, from one hospital to another. This practice (largely due to a shortage of medical officers) discourages the mental hospital doctors from getting to know adequately either the large number of patients necessarily involved in this type of practice, the staff looking after them or the many problems and the difficulties these people encounter and are expected to deal with.

SUMMARY

A description is given of seeing and dealing with female African psychotic patients in groups rather than individually.

The advantages attaching to this practice are pointed out with special reference to the numerous problems associated with their clinical assessment and treatment.

Female African lay assistants had to be engaged in the setting up and conduction of these groups. Their effectiveness in performing this kind of work is commented on.

Some implications arising out of these procedures are freely discussed.

I should like to express my gratitude to Sisters Opt'Hoff, Botha, Langenhoven and their African assistants at Sterkfontein Hospital for their unstinting co-operation in carrying out these projects.

My thanks are due to Prof. L. A. Hurst, Department of Psychiatry and Mental Health, University of the Witwatersrand, Johannesburg, and Dr. C. G. H. Simonsz, Physician Superintendent, Komani Hospital, Queenstown, for their interest in and support of this work.

I would also like to thank Dr. B. P. Pienaar, Commissioner for Mental Hygiene, Drs. Wolpowitz and Boyd (of Fort England Hospital, Grahamstown), Drs. Geerling and Gillis (of Tara Hospital, Johannesburg) and Mr. Alec Goldberg, B.A., for much helpful criticism in the preparation of this paper.

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NOTES AND NEWS : BERIGTE

IN MEMORIAM: DR. MYER HOFFMAN, B.A.,
M.B., CH.B., B.A.O.

Born in Cape Town 58 years ago, Dr. Hoffman was educated at S.A.C.S., the University of Cape Town and Trinity College, Dublin. Dr. Hoffman was a first class student and sportsman. While at Trinity he obtained a blue for cricket, and represented Ireland at Association Football. He was a very keen golfer, a game which he excelled in, and for many years played to a two handicap. Although



suffering frequently from anginal attacks, Dr. Hoffman seldom let a weekend pass without having his round of golf. When asked how it was possible that he could play so soon after a heart attack, the reply was that it was the golf that actually kept him alive. He succumbed to a fatal attack of coronary thrombosis while sitting in a hotel in Lourenco Marques on 14 October 1959.

Dr. Hoffman was a railway medical officer for nearly 30 years, first at Touws River, then at Goodwood and, for the past 21 years, at Parow, Cape. He always took a keen interest in medical affairs. He was a member of the Cape Hospital Board, and a one time president of the Northern Branch of the Cape Western section of the Medical Association. He was also a Rotarian, representing the medical profession for Bellville and Parow. Dr. Hoffman is survived by his wife, two daughters, and two grandsons.

Johannesburg.

H. H. Samson.

SEMINARS ON BEHAVIOUR DISORDERS IN CHILDREN JOHANNESBURG CHILD GUIDANCE CLINIC

Another series of lecture-seminars on behaviour disorders in children will be held under the auspices of this Clinic during 1960.

Those interested in attending the series should communicate with the Medical Director, Dr. J. Katz, Sixth Floor, Salstaff Building, Corner of Smit and Joubert Streets, Wanderers View, Johannesburg. (Telephone: 22-4929).

Mr. J. Heselson, F. R. C. S., and Mrs. Heselson (Dr. Sylvia Gavron), left on 30 November 1959, for an extended study tour of Europe, England and the Far East.

Mr. Heselson will visit surgical centres, concentrating on peripheral vascular diseases and Dr. Gavron will attend Child Psychiatric and Psychological units and Child Guidance Clinics.

They will return in May 1960.

Mr. Anthony J. Leonsins, M.B., B.Ch. (Rand.), F.R.F.P.S. (Glas.), F.R.C.S. (Edin.), (formerly full-time Senior Tutorial Surgeon, University of the Witwatersrand Medical School and the General Hospital, Johannesburg) has commenced practice as a Specialist Surgeon at 416-418 Lister Building, Jeppe Street, Johannesburg. (Telephones: — Rooms: 23-6640; Residence: 42-3434).

MEDICAL PRACTITIONERS AND THE MEDICAL REGISTER

The undernoted medical practitioners have failed in terms of Section 17 (1) (b) of the Medical, Dental and Pharmacy Act, 1928, to notify the Registrar of the South African Medical and Dental Council of their present addresses.

They should advise the Council without delay of their correct permanent addresses:

Aron, Pauline Lou;
Bland, Campbell Young;
Jones, Peter Gloag McEwan Goodman;
Volker, Joachim Armin Herbert;
Wannenber, Cedric;
Wittekind, Simon.

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[Wattley, G. H. (1959): West. Ind. Med. J., 8, 33.]

PREPARATIONS AND APPLIANCES

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*Goldman, D.; Am. J. M. Sc. 235:67, 1958

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It was in 1955 that Drs. Blowers and Wallace of the Medical Research Council's Public Health Laboratory at Middlesbrough published in *The Lancet* details of their investigations into this important question, and described an efficient technique they had developed for dealing satisfactorily with hospital blankets. The recommended procedure was first to wash the blankets with Lissapol N and to follow this by a sterilizing treatment with Cirrasol OD. These recommendations were quite specific, and the routine prescribed gave blankets that were in a satisfactory clean condition both in the generally understood sense and also bacteriologically.

The one-stage process made possible by the introduction of Vantropol BQ offers obvious advantages over the original technique in case of operation and will be found cheaper than the Lissapol N/Cirrasol OD method, but fully as efficient. Vantropol BQ is a clear, stable liquid which dissolves instantly on pouring into water. It possesses excellent detergent properties, and the addition of other detergents is quite unnecessary. Where anionic detergents have previously been used for washing the blankets, of course, maximum sterilization is unlikely to be obtained until the second or even third Vantropol BQ treatment because of the effect of residual anionic detergent in the blankets complexing the cationic Vantropol BQ. This, however, is a relatively unimportant handicap to the adoption of the Vantropol BQ one-stage process.

Recommended Procedure: 3 pints of Vantropol BQ are added for a blanket load of 70-80 lb. (20-25 blankets), using a 34 in. x 54 in. machine

fitted with interrupter gear and charged to a standing dip of 14 in. The washing temperature is 100° F. (38° C.).

The washing cycle occupies a total time of 10 minutes, the machine being run for 2 minutes, followed by 3 minutes with the machine stopped, and this being then repeated. The liquor is dropped and the blankets are given 2 one-minute rinses at 100° F. (38° C.). The blankets are then hydro-extracted and dried in the normal manner.

Trials were carried out in a hospital laundry following the above-described routine. One hundred blankets were taken at random from the blankets waiting to be washed and divided into 2 lots of 50 each. They were examined before washing for bacterial infection, using the 'tap-plate' technique. The same blankets identified by numbered pins, were re-examined after washing in Vantropol BQ.

In the first trial a 99% reduction in the bacteria colony count was achieved. Before washing, coagulase-positive staphylococci had been isolated from 70% of the blankets concerned; after washing, none were isolated from any of the blankets. The corresponding figures in the second trial were 99.5%, 60%, none.

Moreover, in addition to the satisfactory results from these 'before-and-after' bacterial count tests, further tests showed the presence of sufficient bactericide on the blanket fibres after washing to inhibit the growth of representative staphylococci. Tests carried out over a period showed that this effect persisted for 15 days on stored blankets and for 7 days when the blankets were put into use on the wards—comfortable margins which represent a valuable additional degree of protection in the general hygiene of the hospital.

Although the foregoing results, which are very satisfactory, may be taken as typical of those to be expected under general hospital conditions, it is nevertheless possible that less satisfactory results might be obtained under particularly difficult or severe local conditions, and hospital laundries adopting the Vantropol BQ process are advised to check the efficiency of the process as carried out in their own plant and premises.

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The non-ionic detergent incorporated in Vantropol BQ is, as stated at the outset, an extremely efficient one. It may be added that this detergent was designed some years ago for the scouring of wool and is noteworthy not only for its very high detergent efficiency but for the fact that it leaves the wool in a very 'lofty', open condition, being markedly superior to other detergents, even to high-quality soaps, in this respect. In particular, the gradual harshening that can occur when blankets are repeatedly washed is minimized or eliminated when Vantropol BQ is used, with consequent economy and improvement in the service provided by the hospital.

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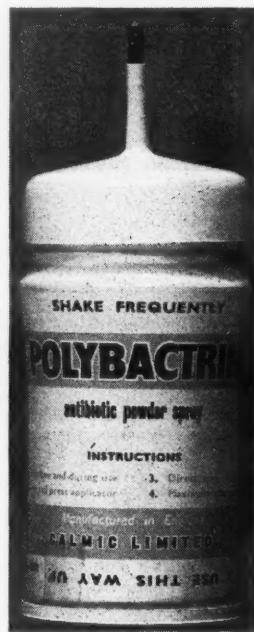
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CORRESPONDENCE

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cation and Welfare, in co-operation with Excerpta Medica's Soviet Editorial Committee of the U.S.S.R. Academy of Medical Sciences, Moscow.

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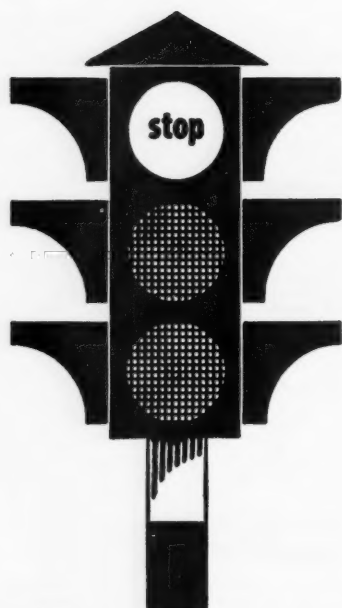
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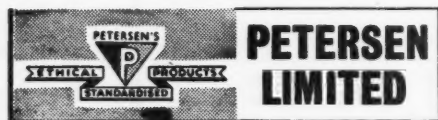
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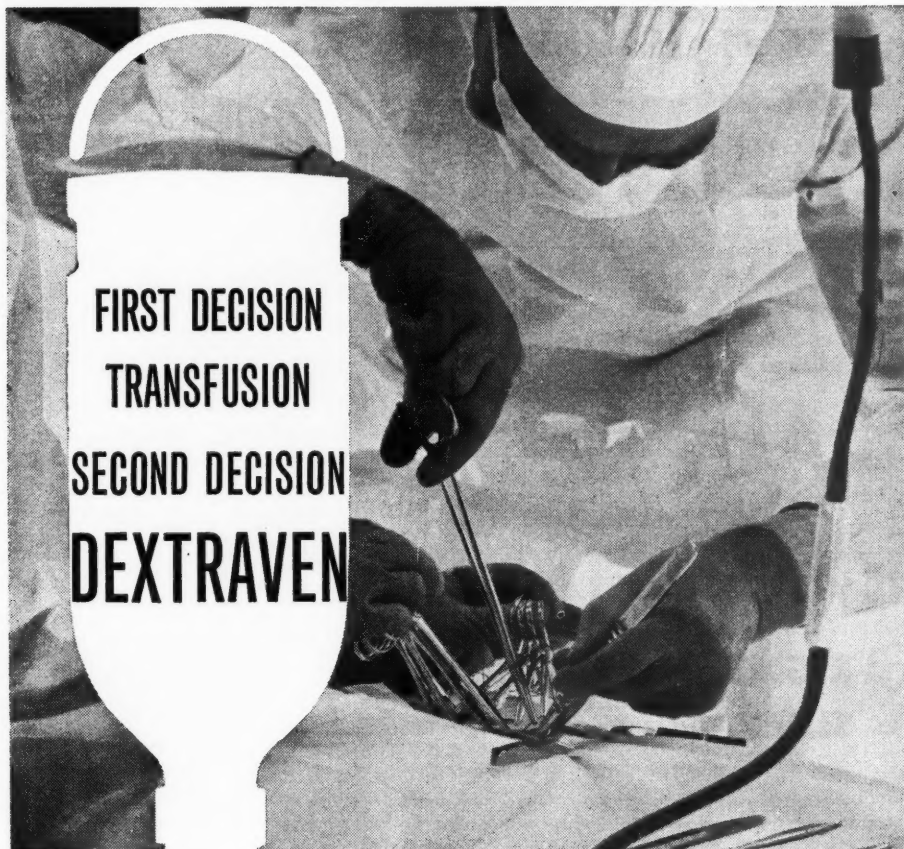
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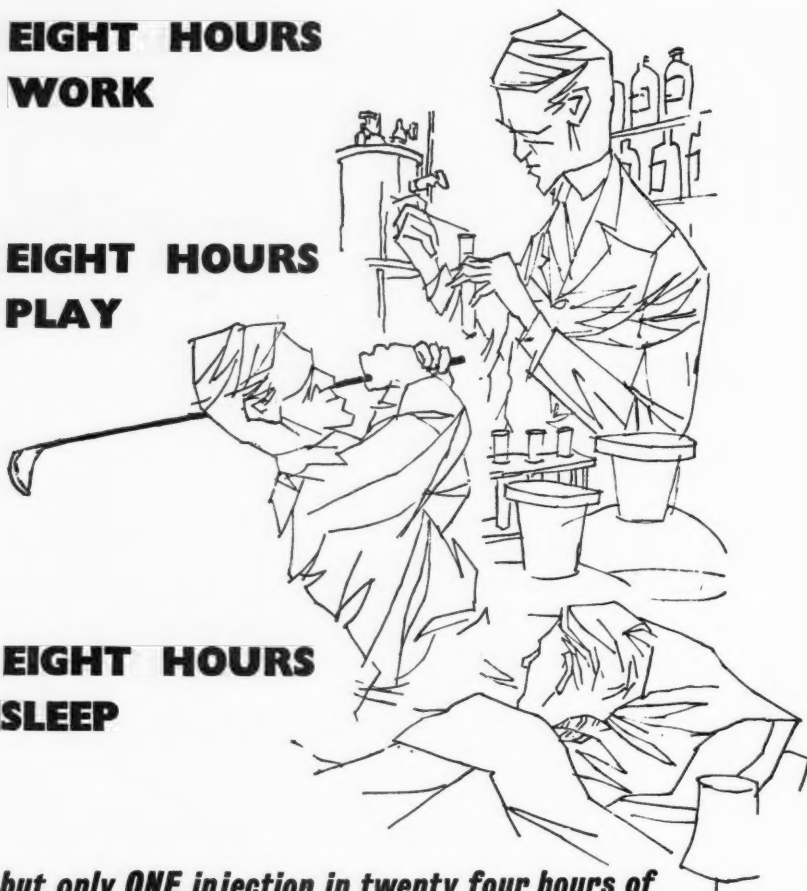
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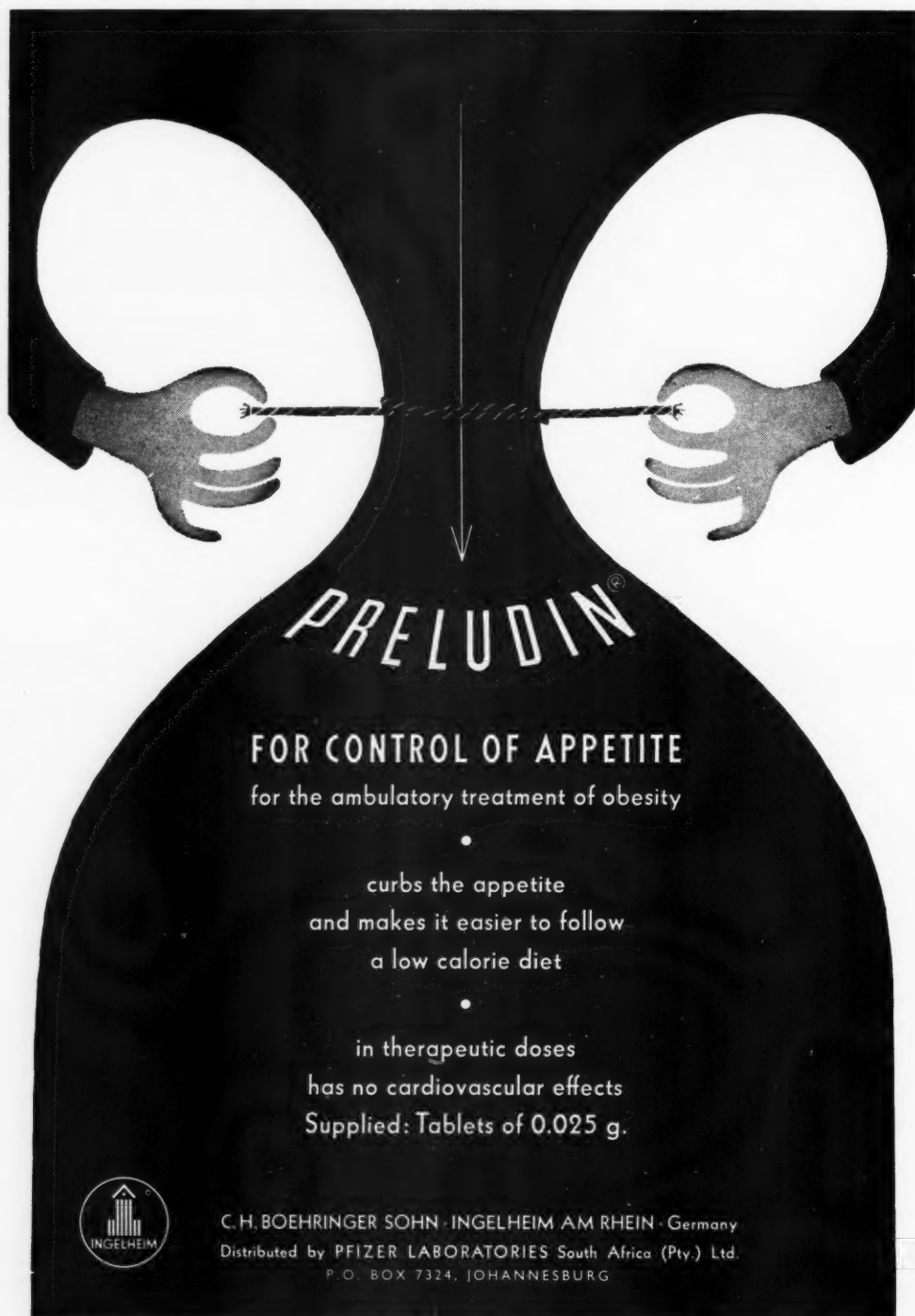
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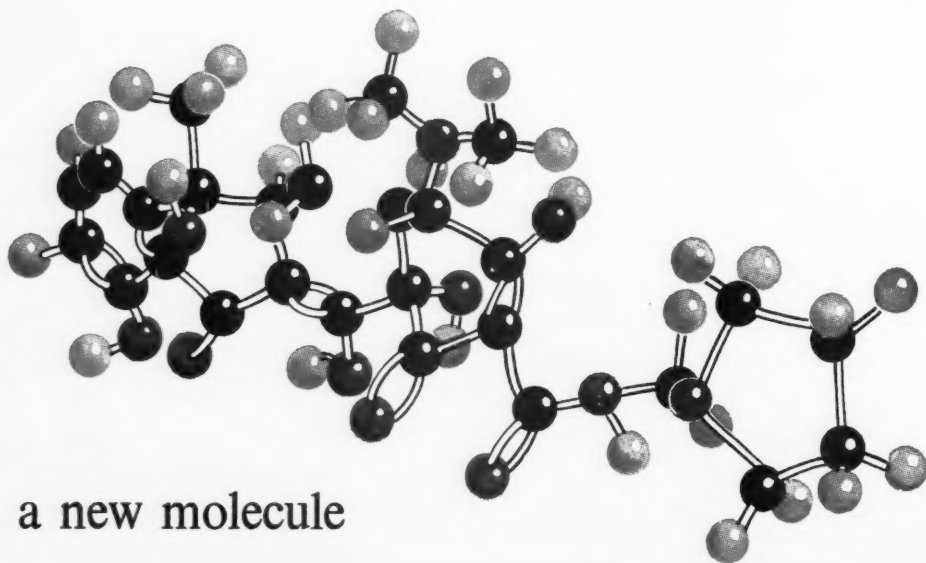
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